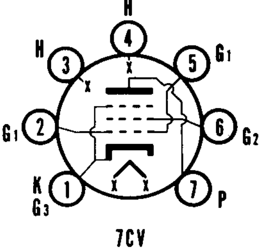


SYLVANIA TYPE 32ET5A

BEAM POWER AMPLIFIER



MECHANICAL DATA

Bulb	T-5½
Base	E7-1, Miniature Button 7-Pin
Outline	5-3
Basing	7CV
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Average Characteristics

	Series Operation
Heater Voltage	32 Volts
Heater Current[1]	100 Ma
Heater Warm-up Time[2]	20 Seconds

Ratings (Design Maximum Values)

	Min-Max
Heater Current[3]	94-106 Ma
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
Total D C and Peak	200 Volts
Heater Positive with Respect to Cathode	
D C	100 Volts
Total D C and Peak	200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate	0.6 $\mu\mu f$
Input: g to (h+k+g2+g3)	12 $\mu\mu f$
Output: p to (h+k+g2+g3)	6.0 $\mu\mu f$

RATINGS (Design Maximum System)

Plate Voltage	150 Volts Max.
Grid No. 2 Voltage	130 Volts Max.
Plate Dissipation	5.4 Watts Max.
Grid No. 2 Dissipation	1.2 Watts Max.
Grid No. 1 Circuit Resistance	
Fixed Bias	0.1 Megohm Max.
Cathode Bias	0.5 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A1 Amplifier

Plate Voltage	110 Volts
Grid No. 2 Voltage	110 Volts
Grid No. 1 Voltage	−7.5 Volts
Peak AF Grid No. 1 Voltage	7.5 Volts
Zero-Signal Plate Current	30 Ma
Zero-Signal Grid No. 2 Current	2.8 Ma
Transconductance	5500 µmhos
Plate Resistance (approx.)	21,500 Ohms
Load Resistance	2800 Ohms
Maximum-Signal Power Output	1.2 Watts
Total Harmonic Distortion (approx.)	10 Percent

NOTES:

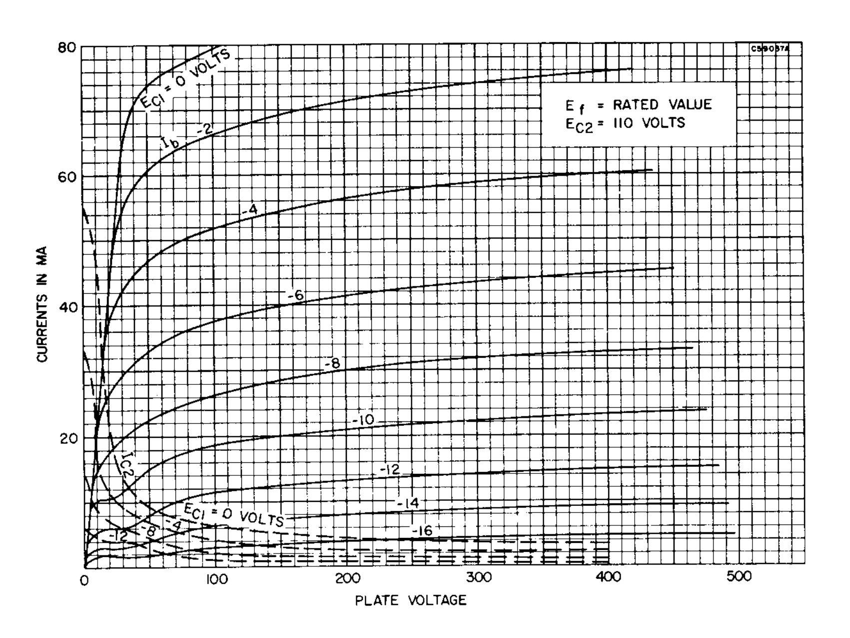
1. For series operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater current.
2. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.
3. Heater voltage supply variations shall be restricted to maintain heater current within the specified values.

APPLICATION

The Sylvania Type 32ET5A is a miniature beam power pentode designed for service as an audio output amplifier. It features high efficiency at relatively low plate and Grid No. 2 voltage.
Type 32ET5A designed for use in AC-DC radio receivers incorporates a 100 Ma heater controlled for heater warm-up time.
Type 32ET5A replaces obsolete Type 32ET5.

SYLVANIA TYPE 32ET5A (Cont'd)

AVERAGE PLATE CHARACTERISTICS



OPERATIONAL CHARACTERISTICS

